ATTACHMENT J4

Altus AFB Wastewater Collection System

TABLE OF CONTENTS

LIST OF TABLES

J4 Altus AFB Wastewater Collection System

J4.1 Altus AFB Overview

Altus Air Force Base (AFB), located within the Altus city limits in Jackson County, Oklahoma, is an Air Education and Training Command (AETC) installation that operates AETC's strategic airlift and aerial refueling flying training schools. Altus AFB is the Air Force's primary Air Mobility Training Center for pilots, navigators, flight engineers, loadmasters, and boom operators. The host command is the 97th Air Mobility Wing (97 AMW). The Wing is the nation's only C-5, C-17, and KC-135 strategic airlift, aerial delivery, and aerial refueling training school.

Altus AFB occupies 4,698 acres, including 338 acres in Military Family Housing, (acquired circa 1941). The Base contains approximately 1,000 buildings totaling over 3.6 million square feet (msf) comprised of the following major functional categories: Industrial: 744,000 square feet (SF); Administrative: 246,000 SF; Military Family Housing (MFH): 1,330,000 SF; Unaccompanied Housing: 430,000 SF; Transient Quarters: 16,000 SF; and Other Community/Support: 834,000 SF. Altus AFB has two runways and one assault strip. The primary runway measures 13,440 feet by 300 feet; the parallel runway measures 9,000 feet by 225 feet; and the assault strip measures 3,500 feet by 150 feet. Authorized aircraft for this Installation are C-5As, KC-135Rs, and C-17s.

There are no known factors that would effect any significant changes in total Altus building space and the consequent increase or decrease of utility requirements.

The Base has a total population of approximately 5,000, including military personnel, civilian employees and support personnel, students, and dependents. Based on payroll, construction, and operational expenditures, it is estimated that Altus AFB has a profound economic impact on the local community of over $345 million annually.

J4.2 Wastewater Collection System Description

J4.2.1 Wastewater Collection System Fixed Equipment Inventory

The Altus wastewater collection system consists of all appurtenances physically connected to the collection system from the point of demarcation defined by the Right of Way. The system may include, but is not limited to, pipelines, manholes, lift stations, and controls. The actual inventory of items to be sold will be in the bill of sale at the time the system is transferred. The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the system. The Government makes no representation that the inventory is accurate. The Contractor shall base its proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description and inventory. Under no circumstances shall the Contractor be entitled to any service charge adjustments based on the accuracy of the following description and inventory.

Specifically excluded from the wastewater collection system privatization:

- Septic tanks, drain fields, grease traps, oil-water separators, and oxidation ponds.
- All wastewater components (collection lines, septic tank, drain field, lift station, oxidation pond) in the isolated and pickled alert area on the north end of the installation.
- Storm sewer collection system.
- Environmental water reclamation and treatment systems.

J4.2.1.1 Description

The City of Altus, Oklahoma, treats all the wastewater generated at Altus AFB. The sewage generated by Altus AFB flows, primarily by gravity, to one of two City meter stations where the flow is measured before entering the City's sewer main. From the meter stations, it flows through sewer mains to the City's publicly owned treatment works.

Depth of burial for collection mains ranges from 4 to 8 feet. None of the pipe was installed with tracer wire.

There are essentially four interconnected wastewater collection system areas at Altus AFB, in addition to several isolated septic systems that are not included in the privatization package. One system area is the Main Base area, with the other areas being Capehart Military Family Housing (MFH), Bicentennial MFH, and the new Great Plains MFH.

The Main Base area was constructed in the 1950s and consists primarily of vitrified clay pipe and masonry manholes. Capehart MFH, built in the 1950s, is the original family housing area. For the most part, the original vitrified clay sewer lines and masonry manholes are still in use. Bicentennial MFH, built around 1976, has SDR35 polyvinyl chloride (PVC) collection lines and concrete manholes. The third family housing area, Great Plains Family Housing, was completed in 2000. Collection lines are SDR35 PVC with concrete manholes.

Two lift stations, located on the south side of the Main Base, serve the main cantonment area. The main lift station, No. 427, was replaced around 1995 and is a pre-cast type facility with two 50 gallons per minute (gpm) submersible pumps. This station is equipped with automatic controls and a local emergency alarm signal light. There is a smaller lift station, No. 447, just east of lift station No. 427, which serves a few buildings along the south end of the flightline and pumps the sewage to lift station No. 427 and another small lift station adjacent to Building 317.

The former Strategic Air Command (SAC) alert area is somewhat isolated and encompasses a few buildings (currently not in use) located in the northwest portion of the Base. Some of the buildings in this area are serviced by a septic tank and drain field. Remaining buildings are serviced by a small package lift station that pumps to an oxidation pond on the west edge of the Base. Since this area is not being used and there are no immediate plans to occupy this alert area, all wastewater components in this alert area are excluded from the privatization package.

The wastewater collection system is operated and maintained by a maintenance staff comprised of military and civilian personnel.

Satellite operating locations (NEXRAD Radar Site, ILS middle Marker Site, and Drop Zone) have no wastewater components to be privatized.

J4.2.1.2 Inventory

Table 1 provides a general listing of the major wastewater collection system fixed assets for the Altus AFB wastewater collection system included in the sale. Drawings used to develop the inventory were the U.S. Corps of Engineers Utility Plan (1997) C-15 Sheet 17, C-16 Sheet 18 and C-17 Sheet 19 of 69 for the Great Plains Housing Area, and the Altus Master Plan (1968) Tab G-2 Sheet 1 for the remaining wastewater collection system inventory.

TABLE 1
Fixed Inventory
Wastewater Utility System - Altus AFB

Item	Size	Quantity	Unit	Approximate Year of Construction
MAIN BASE				
Pipe				
Vitrified Clay	<4″	360	LF	1950
Vitrified Clay	4″	6,590	LF	1950
Vitrified Clay	6″	3,660	LF	1950
Vitrified Clay	8″	19,400	LF	1950
Vitrified Clay	10″	13,060	LF	1950
Vitrified Clay	12″	4,850	LF	1950
Vitrified Clay	15″	4,130	LF	1950
Vitrified Clay (Services)	6″	11,200	LF	1950
Manholes				
Manholes	4x6	170	EA	1950
Lift Stations				
Medium Lift Station Building		1	EA	1995
Medium Lift Station Exc, Bkfl, and Conc.		1	EA	1995
Medium Lift Station Controls and Elec.		1	EA	1995
Small Lift Station Building Exc., Bkfl, & Conc.		1	EA	1995
Small Lift Station Controls and Elec.		1	EA	1995

Notes:
PVC = polyvinyl chloride
LF = linear feet
EA = each
Exc. =
Bkfl. =
Conc. =
Elec. =

J4.2.2 Wastewater Collection System Non-Fixed Equipment and Specialized Tools

Generally, **Table 2** would list other ancillary equipment (spare parts) and **Table 3** would list specialized vehicles and tools included in the purchase. However, there are no significant spares nor or their vehicles or special purpose equipment items available for release.

TABLE 2
Spare Parts
Wastewater Utility System - Altus AFB

Quantity	Item	Make/Model	Description	Remarks
None				

TABLE 3
Specialized Vehicles and Tools
Wastewater Utility System - Altus AFB

Description	Quantity	Location	Maker
None			

J4.2.3 Wastewater Collection System Manuals, Drawings, and Records

Table 4 lists the manuals, drawings, and records that will be transferred with the system.

TABLE 4
Manuals, Drawings, and Records
Wastewater Utility System - Altus AFB

Quantity	Item	Description	Remarks
1	Drawing	Master Plan (1968), Tab G-2	Sheet 1
1	Drawing	COE Utility Plans, Great Plains Housing (1997)	C-15 Sheet 17, C-16 Sheet 18, and C-17 Sheet 19

J4.3 Specific Service Requirements

The service requirements for the Altus AFB wastewater collection system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Altus AFB wastewater collection system and are in addition to those found in Section C. If there is a conflict between requirements described below and Section C, the requirements listed below take precedence over those found in Section C.

- The Contractor will be required to mark his own utilities and will be responsible for initiating, officiating, and tracking digging permits for his own utilities. The Contractor will provide not less than two (2) and not more than five (5) working

days notice (emergencies being excepted) of any needed excavations to 97 CES and to said Utilities Privatization Administrative Contracting Officer so the location of underground utilities may be located and marked by the applicable utility owner. The applicable utility owner must mark their utilities as requested within forty-eight (48) hours of receipt of request for non-emergency work.

- The Contractor shall enter into a Memorandum of Understanding (MOU) with the Base Fire Department for fire protection of all facilities included in the purchase of the utility. The MOU shall be completed during the transition period and a copy provided to the Contracting Officer.

J4.4 Current Service Arrangement

- ***Provider Name:*** City of Altus
- ***Usage:*** Total purchased wastewater treatment for FY 2001 was for 248,781 thousand gallons (Kgals), monthly average – 20,732 Kgals; for FY 2002 the total figure was 266,311 Kgals, monthly average - 22,193 Kgals.
- ***Usage Fluctuations:*** Monthly usage ranged between 16,447 Kgals (Oct) and 24,145 Kgals (May) in FY 2001. For FY 2002 usage range between 17,822 Kgals (Dec) and 32,724 Kgals (Mar). Fluctuations are generally attributable to inflow and infiltration (I&I) where rainy weather increases the measured wastewater flow. However, the City-owned metering and recording device is suspect in that the very unusual peak month in FY 2002 did not coincide with rainy weather.
- The Base provides wastewater collection for Mendel Rivers Elementary School, a former DoD school that has been turned over to the local school district. Reimbursements are estimated based on water consumption.
- The Base operates a small pump and treat facility with effluent discharged into the wastewater collection system. The City of Altus holds the overall discharge permit for the merged City and Altus AFB wastewater flows. Altus AFB tests wastewater on a recurring basis to insure that the Altus contribution to the waste stream would not cause an exceedance.

J4.5 Secondary Metering

J4.5.1 Existing Secondary Meters

There is no metering of wastewater other than the City-owned master meter used to measure total wastewater flow from the Installation.

J4.5.2 Required Secondary Meters

There are no known requirements for additional metering devices.

J4.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. **Invoice** (IAW G.2): The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 3rd of each month for the previous month. Invoices shall be submitted to:

   Name: Bron Howard
   Address: 97 CES/CEOE
   401 L Avenue
   Altus AFB, OK 73523
   Phone number: (580) 481-7638

2. **Outage Report**: The Contractor's monthly outage report (blockage and overflow information) will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 3rd of each month for the previous month. Outage reports shall be submitted to:

   Name: Bron Howard
   Address: 97 CES/CEOE
   401 L Avenue
   Altus AFB, OK 73523
   Phone number: (580) 481-7638

3. **Infiltration and Inflow Report**: If required by Paragraph C.3, the Contractor shall submit an Infiltration and Inflow report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 3rd of each month for the previous month. System efficiency reports shall be submitted to:

   Name: Bron Howard
   Address: 97 CES/CEOE
   401 L Avenue
   Altus AFB, OK 73523
   Phone number: (580) 481-7638

J4.7 Infiltration and Inflow (I&I) Projects

IAW Paragraph C.3, Utility Service Requirement, there are no ongoing I&I initiatives that must be continued after privatization other than the I&I report mentioned in Paragraph J4.6.

J4.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Altus AFB boundaries.

J4.9 Off-Installation Sites

No off-Installation sites are included in the sale of the Altus AFB wastewater collection system.

J4.10 Specific Transition Requirements

IAW Paragraph C.13, Transition Plan, **Table 5** provides a listing of service connections and disconnections required upon transfer.

TABLE 5
Service Connections and Disconnections
Wastewater Utility System - Altus AFB

Location	Description
None	

J4.11 Government Recognized System Deficiencies

Table 6 provides a listing of system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Altus AFB wastewater collection system. If the utility system is sold, the Government will not accomplish these planned improvements. The Contractor shall make a determination as to its actual need to accomplish and the timing of any and all such planned improvements. Capital upgrade projects shall be proposed through the Capital Upgrades and Renewal and Replacement Plan process and will be recovered through Schedule L-3. Renewal and Replacement projects will be recovered through Sub-CLIN AB.

TABLE 6
System Deficiencies
Wastewater Utility System - Altus AFB

Project Location	Project Description
Sewer Collection Lines – Industrial Area	Project 98-1058-I. Sewer mains in this area have significant gradient problems. Project involves replacement of the problematic lines. Project documentation will be located in the Technical Library for review.
Collection System	Several sections of the collection system have significant sedimentation problems that greatly reduce flow capacity. Lines require a thorough flushing.